

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings of claims in the application.

**LISTING OF CLAIMS:**

What is claimed is:

1        1.        (Currently Amended) A method for operating an I/O  
2        coupling channel of a computer system, comprising the steps  
3        of:

4                ~~Providing~~ providing a plurality of modes for said  
5        coupling channel having a first new high function mode and  
6        a second old compatibility mode for intersystem coupling of  
7        computer systems which is addapted to be used with a  
8        collection of computer systems some of which have new high  
9        function mode channels and other of which computer systems  
10       which have old compatability mode channels, wherein is  
11       included including:

12                A said first new high function mode for said coupling  
13       channel and enabling said first new function mode for  
14       operating as a new peer mode with respect to its attached  
15       channel at the opposite end of a link; and

16                ~~an~~ said second old compatibility mode for said  
17       coupling channel and enabling said second old compatibility  
18       mode operating through a converter having multiple sink  
19       ports to multiple sender and/or receiver channels connected  
20       at the opposite end of the converter's multiple sink ports,  
21       and then

22                operating ~~the~~ said coupling channel when said new peer  
23       mode is directly connected to another identical channel  
24       operating in the same said new peer mode, and

25                providing when said first high function mode is  
              operating the first high function mode a peer operation

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2 with many times more message passing facilities than said  
3 second old compatibility mode.

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2. (Currently Amended) The method as recited in claim 1,  
1 wherein ~~the~~ said coupling channel operating in the new peer  
2 mode uses all of its message passing resources to exchange  
3 the maximum number of messages concurrently ~~as possible~~.

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5 3. (Currently Amended) The method as recited in claim 1  
6 2, wherein when required, said coupling ~~the~~ channel  
7 operates in a said second old compatibility mode and said  
8 coupling channel is attached to a converter that allows  
9 further attachment of said coupling channel to a plurality  
of older systems' channels and said second mode old  
1 compatibility mode is used to connect the first high  
2 function mode channels through said converter to multiple  
3 second old compatibility mode channels.

4

5 4. (Currently Amended) The method as recited in claim 1  
6 3, wherein when said coupling ~~the~~ channel is operating in  
1 said second old compatibility mode said coupling channel  
2 divides its message passing resources among ~~the~~ said  
3 multiple sink ports of said converter.

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5. (Currently Amended) The method as recited in claim 5  
5 4, wherein said converter comprises the functions:

6

keeps no state information;

7

adjusts differences in line speeds between ~~the~~ a  
source and said multiple sink ports;

1

routes outbound packets to the correct sink port; and

2

adds source information to inbound packets.

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5 6. (Original) The method as recited in claim 1, wherein  
6 when said coupling the channel is operating in said second  
7 old ~~comparability~~ compatibility mode said coupling channel  
appears to ~~the~~ coupling software controlling transmissions  
1 over said coupling channel as a plurality of independent  
2 channels operating in ~~the~~ said second old compatibility  
3 mode.

4  
5 7. (Currently Amended) The method as recited in claim—7  
6 6, wherein when said coupling the channel is operating in  
7 the said second old compatibility mode said converter  
8 converts from a new coupling channel interface by  
9 processing ~~processes~~ commands from the said coupling  
software giving the illusion of multiple separate old  
1 channels while said converter keeps no state information  
2 and only adjusts line speeds, routes outbound packets, and  
3 adds source information to inbound packets.

4  
5 8. (Currently Amended) The method as recited in claim 7,  
6 wherein when said coupling the channel is operating in the  
7 said second old compatibility mode said coupling channel  
presents interruption, busy, state, and error information  
1 to the coupling software while giving the illusion of  
2 having a plurality of separate channels operating in ~~the~~  
3 said second old compatibility mode.

4  
5 9. (Currently Amended) The method as recited in claim ~~1~~  
6 8, wherein while said coupling the channel is operating in  
the said second old compatibility mode said coupling  
channel provides a plurality of independent sequence  
numbers, one pair for each of said multiple sink ports  
~~converter sink port.~~